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09/703,699	11/01/2000	Craig L. DeCaluwe	2000-0020	2821
26652	7590	11/14/2005	EXAMINER	
AT&T CORP. P.O. BOX 4110 MIDDLETOWN, NJ 07748			SCHEIBEL, ROBERT C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/703,699

Applicant(s)

DECALUWE ET AL.

Examiner

Robert C. Scheibel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

- Applicant's Amendment filed 8/26/2005 is acknowledged.
- Claims 1-3, 5, 7, 9, 12, and 17-18 are amended in this amendment.
- Claims 1-20 are currently pending.

### ***Response to Arguments***

1. Applicant's arguments, see section 1 on page 8, filed 8/26/2005, with respect to the objection to claim 5 have been fully considered and are persuasive. The objection to claim 5 has been withdrawn.
2. Applicant's arguments, see section 2 on page 9, filed 8/26/2005, with respect to the rejection of claim 17 under 35 U.S.C. 112, second paragraph, have been fully considered and are persuasive. The rejection of claim 17 under 35 U.S.C. 112, second paragraph, has been withdrawn.
3. Applicant's arguments, see section 3 on pages 9-15, filed 8/26/2005, with respect to the rejection of claims 1-20 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

In the first two paragraphs of this section on page 9, applicant summarizes the rejections and cites case law related to 35 U.S.C. 103(a). In section A on pages 10-11, applicant argues that the amendment to the independent claims regarding the tabulating step has overcome the prior art. The first paragraph summarizes Lockhart and explains how the recent packet count is not incremented for trusted sources. Applicant argues that the amended claim language of "any particular IP source" is not disclosed in Lockhart because trusted sources are excluded.

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Applicant also argues that since Figure 3 indicates that packets from internal sources are passed through that a count of these packets is not tabulated. However, the examiner is bound to give the claims their broadest reasonable interpretation. As such, the phrase “any particular IP source” merely means that it doesn’t matter which particular IP source as long as one is used. Examiner believes this is clearly the case in Lockhart, as a given non-trusted external source reads on this limitation of any particular source.

In section B on pages 11-12, applicant argues that Lockhart does not teach a router. Applicant argues that the data packet gate of Lockhart is not a router. However, the data packet gate clearly performs the function of a router as it receives packets and distributes them to their intended destination stations. See lines 6-10 of column 3, which indicates the means by which the data gate ensures that the packets are distributed to the proper device; this process of passing data packets to the proper external network is well known in the art as a routing function. Further, lines 22-24 of column 5 indicate that the packet gate may be situated in other equipment such as a web proxy or a firewall; it is well known in the art that a firewall can typically implemented in a router.

In section C on page 12, applicant argues that Lockhart does not teach the limitation of sending a message to a second router. However, the previous action did not rely upon Lockhart for this teaching. The secondary reference in the 103 rejection was used for this purpose. As such, this argument that this limitation is not contained in Lockhart is not persuasive.

In section D on page 13, applicant makes the general statement that none of the other references cure Lockhart’s deficiencies. However, examiner disagrees with this as the previous

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office action provided clear explanation in the 103 rejections of how the missing limitations in Lockhart are disclosed in the secondary references.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain new subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The examiner was unable to find any support in either the originally filed specification or the originally filed drawings for the limitations “the first router directly interconnected by a first plurality of data paths to a first sub-plurality of interconnected routers from the plurality of interconnected routers” or “the second router directly interconnected by a second plurality of data paths to a second sub-plurality of interconnected routers from the plurality of interconnected routers”. If applicant believes that the originally filed specification or the originally filed drawings support this combination of limitations, examiner respectfully requests that the specific page and line numbers be supplied in the response to this office action.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims **1-2, 4, 9, and 11-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 6,549,516 to Albert et al.

Regarding claims **1 and 9**, Lockhart discloses a method in an Internet Protocol (IP) data network comprised of a plurality of interconnected routers, comprised of: receiving at a first router a plurality of IP data packets (the packets received at the input buffer 28 of Figure 3 and described from line 66 of column 2 through line 2 of column 3), the first router directly interconnected by a first plurality of data paths to a first sub-plurality of interconnected routers from the plurality of interconnected routers (see elements 10 and 16 of Figure 2); tabulating at said first router IP data packets received from any particular IP source during a first time interval

(step 60 in Figure 4); storing said count of IP data packets in a memory device for subsequent processing (inherent as the recent packet count is used at a later time (e.g. step 64)); determining that a time-based data traffic measure from said particular IP source exceeds a predetermined threshold (step 64; this is clearly a time-based measure as indicated by “recent packet count”). Lockhart also discloses making a decision to discard packets from a particular source when the recent packet count exceeds a threshold.

Lockhart does not disclose expressly the limitation of sending a message to a second system indicating the behavior the second system should take regarding the packets from the source address. Albert discloses a system whereby a network service appliance (see 130 in figure 1) is separated into a number of distributed elements (231-2 and 241-2 of figure 2). Lines 30-32 of column 10 indicates that the forwarding agents may be implemented on routers and as such are interpreted as routers herein. Similarly, lines 53-56 of column 9 and lines 41-46 of column 10 indicate that the service managers can perform routing functions and are thus also routers. Albert discloses the limitation of sending a message from a first router (service manager 241) to a second router (forwarding agent 231). The limitation that the second router directly interconnected by a second plurality of data paths to a second sub-plurality of interconnected routers from the plurality of interconnected routers is disclosed in the network 210 of figure 2A as well as elements 10 and 16 of Figure 2 of Lockhart. Since these networks clearly are comprised of a plurality of routers, it is clear that a first and second sub-plurality of these routers are connected to the first and second routers, respectively.

Lockhart and Albert are analogous art because they are from the same field of endeavor of specialized services in IP data networks such as packet filtering. At the time of the invention

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it would have been obvious to a person of ordinary skill in the art to modify Lockhart by splitting the data packet gate into multiple distributed elements. The motivation for doing so would have been to provide better scalability as indicated by Albert in numerous locations such as lines 5-12 of column 3. Therefore, it would have been obvious to combine Albert with Lockhart for the benefit of increased scalability to obtain the invention as specified in claim 1.

Regarding claim 2, Lockhart discloses the steps of: reading said count of IP data packets from said memory device (inherent in step 64 of Figure 4; the recent packet count must be read before it can be evaluated); selectively discarding IP data packets received at said first router that originated from said particular source (steps 64 and 66 of Figure 4).

Regarding claim 4, Lockhart discloses the limitation that said step of selectively discarding IP data packets includes the step of denying reception of IP data packets from a router based upon a source address in IP data packets upon the determination that the count of IP data packets from a source address exceeds a threshold value (steps 64 and 66 of Figure 4).

Regarding claim 11, Lockhart does not disclose the limitation of providing the traffic measure to a user via a user interface. Albert discloses this limitation in the user interface 256 of figure 2B and described in columns 2-4 of column 10. Lockhart and Albert are analogous art because they are from the same field of endeavor of specialized services in IP data networks such as packet filtering. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart to provide a user interface to monitor the data packet gate. The motivation for doing so would have been to provide the customer with greater visibility into the behavior of the system. Therefore, it would have been obvious to combine



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Albert with Lockhart for the benefit of greater visibility to obtain the invention as specified in claim 11.

Regarding claim 12, Lockhart as modified by Albert in the rejection of claim 9 above, discloses the limitation of claim 12 of sending said message to a sub-plurality of routers (the forwarding agents 231 and 232).

Regarding claim 13, Lockhart just drops the packet when the threshold is exceeded, thus disclosing the limitation of ignoring incoming packets from a particular source.

Regarding claim 14, Lockhart clearly discloses the threshold as described above. It is inherent that this threshold must be determined, thus disclosing the limitation of claim 14.

Regarding claim 15, Lockhart discloses the limitation of automatically polling a memory for information on the time-based data traffic measure in block 64 of Figure 4.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 6,549,516 to Albert et al and in further view of U.S. Patent 5,491,801 to Jain et al.

Lockhart and Albert disclose all the limitations of parent claim 1 as discussed in the rejection under 35 U.S.C. 103(a) above. Lockhart, as modified, does not disclose expressly the limitation that the switching system is an IP router of claim 3. Jain discloses a method of performing congestion control at a router by monitoring the data transmitted by particular users (see lines 37-38 of column 5 and Figure 4). As Lockhart's invention is intended to prevent excessive traffic from a particular user, this suggests the use of Lockhart's invention in a router. Lockhart and Jain are analogous art because they are from the same field of endeavor of

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controlling excessive traffic by a particular user. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart by implementing his invention as a sub-system in a router, which would be less expensive than creating a stand-alone device to perform the method. Lockhart suggests in lines 22-24 of column 5 that the invention could be implemented as part of another piece of equipment. Therefore, it would have been obvious to combine Jain with Lockhart and Albert for the benefit of reducing costs to obtain the invention as specified in claim 3.

5. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 6,549,516 to Albert et al and in further view of U.S. Patent 6,754,715 to Cannon et al.

Regarding claim 10, the limitation of parent claim 9 is disclosed by the combination of Lockhart and Albert as described in the rejection above. Lockhart, as modified, does not disclose expressly the limitation of overwriting packets in a buffer responsive to said determining step. Cannon discloses this limitation in lines 37-42 of column 7. Lockhart, modified, and Cannon are analogous art because they are from the similar problem solving area of transmitting digital data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart, modified, to discard packets by overwriting older data in the buffer. The motivation for doing so would have been to use allow a smaller buffer to be used as suggested by Cannon in lines 50-55 of column 7. Therefore, it would have been obvious to combine Cannon with Lockhart, modified, for the benefit of a smaller buffer size to obtain the invention as specified in claim 10.

6. Claims **5-6 and 17-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,706,279 to Teraslinna and in further view of U.S. Patent 6,549,516 to Albert et al.

Regarding claim **5**, Lockhart discloses the steps of sending a plurality of IP data packets from a first router to a second router (see figure 2; the first switching system is the data packet gate 20 and the second switching system is one of the network elements comprising the radio network 16) the first router directly interconnected by a first plurality of data paths to a first sub-plurality of interconnected routers from the plurality of interconnected routers (see elements 10 and 16 of Figure 2); tabulating at said first router a count of IP data packets sent to any particular IP destination address during a first time interval (step 60 in Figure 4; however, this is a count of packets from the source address); storing said count of IP data packets sent to a particular IP destination address in a memory device for subsequent processing (inherent as the recent packet count is used at a later time); determining that a time-based data traffic measure from said particular IP source exceeds a predetermined threshold (step 64; this is clearly a time-based measure as indicated by “recent packet count”). Lockhart also discloses making a decision to discard packets from a particular source when the recent packet count exceeds a threshold.

Lockhart does not disclose expressly the limitation that the count value is maintained at the first switching element and that it is a count of packets associated with a given destination. Lockhart also does not disclose expressly the limitation of sending a message to a second system indicating the behavior the second system should take regarding the packets from the source address. Tersalinnna discloses a method whereby network congestion is managed by monitoring

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the bandwidth usage from or to a particular endpoint as opposed to monitoring each flow (source-destination pair) individually (see abstract and columns 1 and 2). Specifically, in figures 11 and 12, Tersalinna discloses a method of inhibiting the packet flow based on the traffic destined to a particular endpoint. Lockhart and Tersalinna are analogous art because they are from the same field of endeavor of congestion control. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart to monitor packets based on the destination address of packets (and similarly inhibit packets when necessary) in addition to monitoring based on the source address. The motivation for doing so would have been to avoid wasting network resources by controlling the flow of packets earlier in the network. As suggested by Tersalinna in lines 26-28 of column 15, this will avoid having the radio network 16 discard the packets.

Lockhart, as modified by Teraslinna, does not disclose expressly the limitation of sending a message to a second system indicating the behavior the second system should take regarding the packets from the source address. Albert discloses a system whereby a network service appliance (see 130 in figure 1) is separated into a number of distributed elements (231-2 and 241-2 of figure 2). Lines 30-32 of column 10 indicates that the forwarding agents may be implemented on routers and as such are interpreted as routers herein. Similarly, lines 53-56 of column 9 and lines 41-46 of column 10 indicate that the service managers can perform routing functions and are thus also routers. Albert discloses the limitation of sending a message from a first router (service manager 241) to a second router (forwarding agent 231). The limitation that the second router directly interconnected by a second plurality of data paths to a second sub-plurality of interconnected routers from the plurality of interconnected routers is disclosed in the

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network 210 of figure 2A as well as elements 10 and 16 of Figure 2 of Lockhart. Since these networks clearly are comprised of a plurality of routers, it is clear that a first and second sub-plurality of these routers are connected to the first and second routers, respectively. Lockhart, as modified, and Albert are analogous art because they are from the same field of endeavor of specialized services in IP data networks such as packet filtering. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart, as modified, by splitting the data packet gate into multiple distributed elements. The motivation for doing so would have been to provide better scalability as indicated by Albert in numerous locations such as lines 5-12 of column 3. Therefore, it would have been obvious to combine Albert with Lockhart and Tersalinna, for the benefit of conserving network resources to obtain the invention as specified in claim 5.

Regarding claim 6, with the parent claims addressed by Lockhart as modified above, Lockhart discloses the limitations of d. reading said count of IP data packets from said memory device (inherent in step 64 of Figure 4; the recent packet count must be read before it can be evaluated); e. selectively inhibiting the transmission of IP data packets from said first router to said second router when the number of IP packets from said first router exceeds a predetermined number (steps 64 and 66 of Figure 4).

Regarding claim 17, Lockhart does not disclose the limitation of providing the traffic measure to a user via a user interface. Albert discloses this limitation in the user interface 256 of figure 2B and described in columns 2-4 of column 10. Lockhart and Albert are analogous art because they are from the same field of endeavor of specialized services in IP data networks such as packet filtering. At the time of the invention it would have been obvious to a person of

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ordinary skill in the art to modify Lockhart to provide a user interface to monitor the data packet gate. The motivation for doing so would have been to provide the customer with greater visibility into the behavior of the system. Therefore, it would have been obvious to combine Albert with Lockhart for the benefit of greater visibility to obtain the invention as specified in claim 17.

Regarding claim 18, Lockhart as modified by Albert in the rejection of claim 5 above, discloses the limitation of claim 18 of sending said message to a sub-plurality of routers (the forwarding agents 231 and 232).

Regarding claim 19, Lockhart just drops the packet when the threshold is exceeded, thus disclosing the limitation of ignoring incoming packets.

Regarding claim 20, Lockhart clearly discloses the threshold as described above. It is inherent that this threshold must be determined, thus disclosing the limitation of claim 14.

7. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,706,279 to Teraslinna in further view of U.S. Patent 6,549,516 to Albert et al and in further view of U.S. Patent 5,491,801 to Jain et al.

Regarding claim 7, Lockhart, as modified, discloses all the limitations of parent claim 5 as discussed in the rejection under 35 U.S.C. 102(e) above. Lockhart does not disclose expressly the limitation that the switching system is an IP router of claim 7. Jain discloses a method of performing congestion control at a router by monitoring the data transmitted by particular users (see lines 37-38 of column 5 and Figure 4). As Lockhart's invention is intended to prevent excessive traffic from a particular user, this suggests the use of Lockhart's invention in a router.

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Lockhart and Jain are analogous art because they are from the same field of endeavor of controlling excessive traffic by a particular user. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart by implementing his invention as a sub-system in a router, which would be less expensive than creating a stand-alone device to perform the method. Lockhart suggests in lines 22-24 of column 5 that the invention could be implemented as part of another piece of equipment. Therefore, it would have been obvious to combine Jain with Lockhart for the benefit of reducing costs to obtain the invention as specified in claim 7.

Regarding claim 8, Lockhart as modified discloses all the limitations of parent claim 6 as discussed above. Lockhart as modified does not disclose expressly the limitation of sending a packet to a specific router to discard messages received from or sent to a specific IP address. Jain describes a conventional method of congestion control from line 57 of column 3 through line 5 of column 4. In this passage, Jain clearly discloses the limitation of sending a message ("source quench" or "choke" packets) to a source router as a means of inhibiting the flow of packets.

Lockhart as modified and Jain are analogous art because they are from the same field of endeavor of packet routing systems. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify the Lockhart to send a source quench packet to the source router when the threshold is crossed. The motivation for doing so would have been to stop these packets as close to the source as possible; this will prevent this extra traffic from loading switching/routing devices in the path from the first to the second IP data router switching system. Therefore, it would have been obvious to combine Lockhart as modified with Jain for

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the purpose of stopping these packets as close to the source as possible to obtain the invention as specified in claim 8.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,189,035 to Lockhart et al in view of U.S. Patent 5,706,279 to Teraslinna and in further view of U.S. Patent 6,549,516 to Albert et al and in further view of U.S. Patent 6,754,715 to Cannon et al.

Regarding claim 16, the limitation of parent claim 5 is disclosed by Lockhart as modified above and as described in the rejection above. Lockhart, as modified, does not disclose expressly the limitation of overwriting packets in a buffer responsive to said determining step. Cannon discloses this limitation in lines 37-42 of column 7. Lockhart, modified, and Cannon are analogous art because they are from the similar problem solving area of transmitting digital data. At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Lockhart, modified, to discard packets by overwriting older data in the buffer. The motivation for doing so would have been to use allow a smaller buffer to be used as suggested by Cannon in lines 50-55 of column 7. Therefore, it would have been obvious to combine Cannon with Lockhart, modified, for the benefit of a smaller buffer size to obtain the invention as specified in claim 16.



DANG TON  
PRIMARY EXAMINER



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*ACS* 11-10-05  
Robert C. Scheibel  
Examiner  
Art Unit 2666